within the product market for local services to the extent that customers rely on mobile wireless service as a complete substitute for, rather than complement to, wireline service.[277]

(ii) Long Distance Services

91. There is significant evidence in the record that long distance service purchased on a stand-alone basis is becoming a fringe market, including the decision by AT&T to cease marketing long distance services,[278] the declining proportion of consumers choosing a long distance provider different from their local service provider,[279] and other documentary evidence.[280] Nonetheless, because equal access requirements permit a consumer to choose to subscribe to an alternative carrier's long distance service,[281] we follow Commission precedent and consider long distance services as a separate relevant product market.[282] As discussed below, we find that this market includes not only presubscribed wireline long distance providers, but also mobile wireless service and transaction services, such as prepaid calling cards and dial-around services.[283]

92. *Mobile Wireless.* Although the precise extent to which a mobile wireless service is in the long distance market is unclear from the record, we find it appropriate to include mobile wireless services in the relevant market at least to some extent based upon usage substitution between wireless and wireline long distance service. The Commission previously has noted mobile wireless providers' increased offering of wide-area pricing plans,[284] and the migration of minutes from wireline to mobile wireless

[277] In addition, we agree with commenters who note that the record does not present credible evidence that mobile wireless services have a price constraining effect on all consumers' demand for primary line wireline services. Cbeyond *et al.* Wilkie Decl. at paras. 41, 44.

[278] AT&T Info. Req., ATT560000524 at 527, 538-548, 558-563; ATT551002844-51; ATT500001377-1402.

[279] Between March 2004 and March 2005, the percentage of SBC's residential lines with a presubscribed interexchange carrier increased from **[REDACTED]**% to **[REDACTED]**%, while the percentage of its residential lines with a presubscribed interexchange carrier other than SBC declined from **[REDACTED]**% to **[REDACTED]**%. Calculated from data contained in SBC Info. Req., Exh. 16b(1&4).

[280] AT&T Info. Req., AT&T543010157 at 10164-73; SBC Info. Req., SBC144309 at 144342-43.

[281] The likelihood that consumers subscribing to bundled service plans consider the price and characteristics of the bundle as a whole, rather than individual components of the bundle, decreases the likelihood that an increase in the price of stand-alone long distance services (or the long distance component of the bundle) would lead a consumer to switch to an alternative service provider for its bundle of services. Thus, the relevant group of consumers for this analysis may only be those consumers that currently purchase a wireline long distance service (whether as a stand-alone offering or bundled) and have a significant demand for long distance services.

[282] We reject the Applicants' assertions that we should include e-mail and instant messaging in the relevant service markets for services provided to mass market consumers. SBC/AT&T Carlton/Sider Decl. at para. 25. In light of the qualitative differences between these options and voice communications, the Applicants have not demonstrated that they belong in the same relevant product market.

[283] There is insufficient information in this record to assess the extent to which mass market consumers use over-the-top VoIP services specifically for domestic long distance calls.

[284] *See, e.g., Tenth CMRS Competition Report*, para. 97.

services.[285] However, the long distance usage data in the record are for mass market and all business customers combined,[286] and thus cannot be used to infer the calling patterns for mass market consumers alone.

93. In evaluating the substitutability of wireless service for stand-alone long distance service, our analysis focuses on the behavior of those consumers that currently subscribe to both a wireline long distance service and a mobile wireless service.[287] There is evidence suggesting that consumers are increasingly using their mobile wireless service for long distance calls,[288] and there is evidence suggesting that SBC and AT&T consider minute substitution in their business strategies.[289] As a general matter, we expect that a consumer who subscribes to both a mobile wireless service and a wireline long distance service will allocate minutes between these services in an optimal manner, *i.e.*, the consumer will seek the lowest possible charge, consider service quality, and consider the time the call is placed. While we have insufficient information in this record to determine the precise extent of wireless long distance minute substitution, we acknowledge that mobile wireless services are in the relevant product market at least to some extent.

94. *Transaction Services.* As with mobile wireless service, we find that certain segments of mass market consumers use these services (prepaid calling cards and dial-around services) as a substitute for long distance services. SBC maintains that prepaid cards are used by consumers who cannot otherwise afford traditional long distance, wireless service, or a home phone; who travel frequently; or who have very targeted calling needs.[290] We have insufficient information to determine the precise extent of consumer substitution between transaction services and presubscribed wireline long distance services, however. In the absence of more precise information, we include these services in the relevant market definition to the extent that consumers view these services as substitutes for presubscribed wireline long distance service. In any event, to the extent that these services are part of the relevant market, they appear to be of declining significance. Publicly available information[291] as well as the evidence in this

[285] *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report and Order and Second Further Notice of Proposed Rulemaking, 17 FCC Rcd 24952, 24966, para. 22 (2002) (*Contribution Methodology Order and FNPRM*).

[286] SBC/AT&T Reply at 112.

[287] Our market definition exercise does not consider the purchasing behavior of consumers who do not have a presubscribed interexchange carrier or who rely upon mobile wireless service for all of their communications needs, because they would be unaffected by a theoretical price increase for wireline long distance services as a result of the merger. In addition, our market definition exercise does not consider the purchasing behavior of consumers who do not currently subscribe to a mobile wireless service because it would most likely be more costly for these consumers to subscribe to a mobile wireless service in order to migrate wireline long distance minutes to a mobile wireless service than it would be to pay a higher price for wireline long distance service.

[288] From 2000 to 2003, the Commission reports that the percentage of all wireless calls that are interstate calls increased from 10% to 15%, and the percentage of all minutes that are interstate grew from 16% to 26%. *Trends in Telephone Service* at 11-2 (April 2005); *see also* SBC/AT&T Reply at 112 (reporting the results of a Yankee Group survey finding that, in U.S. households, more than 60% of long distance calls have been replaced by wireless).

[289] AT&T Info. Req., ATT543010157 at 63-69; ATT560000524 at 533, 562; SBC Info. Req., SBC144309 at 144327, 144354; SBC218651 at 218693-94.

[290] SBC/AT&T Application at 65 n.212.

[291] AT&T 2004 Annual Report at 45; AT&T 2003 Annual Report at 21-22; MCI 2004 Annual Report at 49-50.

record indicates consumer demand for these services has declined significantly in the last two years,[292] possibly due to reductions in long distance pricing as well as substitution to mobile wireless services.[293]

(iii) Bundled Local and Long Distance Services

95. We agree with the commenters that bundled local and long distance services should be treated as a separate relevant product market.[294] The economics literature generally discusses two types of bundles: a pure bundle, where the bundled services are only sold together and are not sold individually; and a mixed bundle, where the bundled services are sold individually, as well as in a package.[295] There is significant variation across providers as to whether they offer a pure bundle or a mixed bundle. Because of the varied marketing strategies and limitations in the data, we define a local and long distance service bundle, for purposes of this proceeding only, as a customer's purchase of local and long distance services from the same carrier, regardless of whether these services are purchased together as part of an advertised bundle from a single carrier or whether the consumer creates the bundle by selecting separately-offered local and long distance service plans from the same provider. The evidence indicates that: consumers predominantly purchase local and long distance services from a single provider today; this trend is likely to continue; and the stand-alone wireline long distance market is steadily declining in size relative to the bundled services market.[296]

96. Several other factors also convince us that it is appropriate to define bundled local and long distance services as a separate relevant product market. First, we find that SBC's marketing and pricing

[292] Between December 2002 and December 2004, the percentage of households within SBC's region reporting use of dial-around service declined from **[REDACTED]**% to **[REDACTED]**%; the corresponding figures for the nation as a whole are **[REDACTED]**% and **[REDACTED]**%. SBC Info. Req., SBC77525 at 77585; SBC144309 at 144344; SBC218651 at 218695, 218703-04; AT&T June 13 *Ex Parte* Letter, Specification 18 Attach. at 8 (*Atlantic ACM Excerpt*).

[293] SBC Info. Req., SBC144309 at 144344, 144353; AT&T Info. Req., ATT543010157 at 543010163-73.

[294] *See, e.g.*, New Jersey Ratepayer Advocate Reply at 6-7; Telecom Consumers' Coalition Reply at 8; Cbeyond *et al.* Wilkie Decl. at paras. 42-43; Cbeyond *et al.* Petition at 30-31. The Commission has previously noted the increased subscription to bundled telecommunications service offerings. *See, e.g., Section 272 Sunset FNPRM*, 18 FCC Rcd at 10919, para. 9. While the Applicants do not specifically address the issue of a bundled service market, they assert that they face significant competition from intermodal and VoIP providers, who offer a bundled service. SBC/AT&T Application at 56-67; SBC/AT&T Reply at 106-114.

[295] In a mixed bundle, the package generally is sold at a discount relative to the sum of the individual service component prices. *See, e.g.*, Barry Nalebuff, *Bundling, Tying and Portfolio Effects*, DTI Economics Paper No. 1 (2001) at 13-14, *available at* http://www.dti.gov.uk/ccp/topics2/pdf2/bundle1.pdf.

[296] As of June 2005, 61% of SBC's retail local consumer lines have SBC as a presubscribed interexchange carrier. SBC Investor Briefing, July 21, 2005, at 5. The proportion of SBC's residential consumer lines that have SBC as the interexchange long distance carrier increased from **[REDACTED]**% to **[REDACTED]**% between March 2004 and March 2005. *See* SBC Info. Req., Exh. 16b(1&4). Within SBC's region, TNS reports that the proportion of households purchasing local and long distance from a single provider increased from **[REDACTED]**% to **[REDACTED]**% between December 2002 and December 2004. Nationally, the proportion has increased from **[REDACTED]**% to **[REDACTED]**%. SBC Info. Req., SBC77525 at 77566-567; *see also* SBC Info. Req., SBC144309 at 144342 (**[REDACTED]**). We note that the Commission anticipated that a bundled product market might become a relevant product market sometime after the BOCs completed the section 271 process. *See, e.g., Bell Atlantic/NYNEX Order*, 12 FCC Rcd at 20010-11, paras. 39-42; *WorldCom/MCI Order*, 13 FCC Rcd at 18038-39, para. 22 n.60. SBC completed the section 271 process in October 2003.

strategies are designed to encourage subscription to a bundled service package.[297] Second, the evidence in the record indicates increasing intermodal competition is likely between wireline services and services provided on alternative service platforms such as facilities-based VoIP and mobile wireless. These intermodal services tend to be offered as a bundle of local and long distance services, which further supports the use of a bundled local and long distance services market.[298] These findings suggest that competition tends to occur between bundled offerings rather than between a bundle and stand-alone local and long distance services offered by separate providers.

b. Relevant Geographic Market

97. As with special access and enterprise services, we conclude that the relevant geographic market for mass market local, long distance, and bundled local and long distance services is the customer's location.[299] We then aggregate customers facing similar competitive choices. As explained below, because of limitations in the data in the record, we analyze local, long distance, and bundled local and long distance service for SBC's franchise area within each state.

98. This approach is consistent with the way we have defined the relevant geographic market in previous mergers of incumbent LECs.[300] We acknowledge that, in the *LEC Classification Order*, the Commission adopted a national geographic market based on the section 254(g) requirement that interexchange carriers adopt geographically averaged prices across the United States.[301] Importantly, however, the Commission also found that, while a long distance calling plan may be "ubiquitous" in that it offers nationwide coverage, the market to purchase the plan is a localized market, not a national one.[302] The Commission went on to state that it would consider a smaller relevant geographic market if it found evidence that there is, or could be, a lack of competition in a particular market.[303] Because we are examining here whether the proposed merger involving SBC and AT&T is likely to lead to a lessening of

[297] SBC's documents reveal that its research and development, marketing, and corporate strategies focus upon service offerings designed to encourage consumers to subscribe to a local and long distance service bundle. SBC's incentive is to drive consumers to purchase all telephone services from SBC to reduce its marketing costs and churn, as well as to increase its average revenue per user. SBC/AT&T Reply at 89-91; SBC Investor Briefing, April 21, 2004 at 5; SBC Investor Update, SBC 2004 First Quarter Earnings Conference Call, Apr. 21, 2004 at 6, 16, 18; SBC Info. Req., SBC24705-22. Moreover, these strategies are revealed by the marketing of its bundled service offerings, as well as its policy of requiring consumers to subscribe to its local service as a prerequisite to subscribing to its long distance service. *See, e.g., SBC Residential Solutions* (visited Aug. 19, 2005) *available at* http://www02.sbc.com/Products_Services/Residential/Catalog/1,,13--1-3-13,00.html; *see also, e.g.*, SBC Info. Req., SBC57075 at 57089; SBC218651 at 218693; SBC121379 at 121381, 121388; SBC39089 at 39098, 39140-41.

[298] NASUCA Comments at 11-12; Cbeyond *et al.* Wilkie Decl. at paras. 40-43. We note that SBC's concerns about the loss of customers to bundled local and long distance service offered by alternative platforms is an important influence on its strategies. SBC/AT&T Reply at 103-04.

[299] *See supra* Parts V.B (Wholesale Special Access Competition), V.C (Retail Enterprise Competition).

[300] *See, e.g., Bell Atlantic/NYNEX Order*, 12 FCC Rcd at 20016, para. 54; *SBC/Ameritech Order*, 14 FCC Rcd at 14746, para. 69.

[301] *LEC Classification Order*, 12 FCC Rcd at 15794, para. 66; *WorldCom/MCI Order*, 13 FCC Rcd at 18119-20, para. 166.

[302] *LEC Classification Order*, 12 FCC Rcd at 15793, para. 65.

[303] *Id.* at 15794, para. 66.

competition for long distance services, and because SBC's (and to some extent AT&T's) market shares in the long distance and bundled local and long distance markets vary significantly from state to state,[304] we find it appropriate to consider a narrower relevant geographic market.

99. We recognize that the competitive choices customers face may vary within a state (*e.g.*, in some areas of a state, cable companies may provide cable VoIP, while in other areas they may not). This suggests that we should define the relevant geographic market to be an area smaller than the state. The data in the record is not sufficiently detailed, however, for us to perform a structural analysis at a more disaggregated level than that of the state. Accordingly, in performing our structural analysis, we calculate market shares and changes in market share at the state level. While we recognize that, in theory, using a state-level analysis may mask some variations in smaller geographic areas, we find it a reasonable approach to our analysis, particularly given that SBC's pricing for local, long distance, and bundled local and long distance services is generally advertised on a statewide basis.[305] Accordingly, we analyze mass market local, long distance, and bundled local and long distance services in SBC's franchise area within each state.

c. Market Participants

100. As the foregoing indicates, SBC faces competition from a variety of providers of retail mass market services. These competitors include not only wireline competitive LECs and long distance service providers but also, to at least some extent, facilities-based and over-the-top VoIP providers, and wireless carriers.

2. Competitive Analysis

a. Horizontal Effects

101. *Unilateral Effects.* As discussed below, we find that SBC's acquisition of AT&T is not likely to result in anticompetitive effects for mass market services due to AT&T's actions to cease marketing and gradually withdraw from providing local service, long distance service and bundled local and long distance service to the mass market. We also conclude that competition from intermodal competitors is growing quickly, and we expect it to become increasingly significant in the years to come.[306]

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[304] The variation in market share from state to state for long distance and bundled local and long distance services is due in large part to the fact that SBC obtained section 271 authority in a particular state to provide such services at different times and therefore has been competing in those markets for varying periods of time.

[305] *See, e.g., SBC – Residential Products and Services* (visited Sept. 9, 2005) *available at* http://www.sbc.com/gen/general?pid=1080&cdvn=localize&prod-snip=res_long_distance; *SBC Selector* (visited Sept. 9, 2005) *available at* http://configurator.sbc.com/acct_cfg/SBCSelector/AppUI/BMSFrontAppUI/content/residential/splash_files/splash.jsp.

[306] Although the Applicants allude to regulatory safeguards, which they claim would constrain the post-merger firm's prices, we are not persuaded that this would adequately address competitive concerns. SBC Application at 45. For example, local services are subject to only limited price regulation in some states (*e.g.*, Oklahoma, Arkansas, and Ohio). Currently there is limited regulatory oversight for SBC's retail service offerings provided through its section 272 separate affiliate. In many states, SBC's bundled offerings either have no price regulation (*e.g.*, Arkansas, Missouri, Michigan) or they can be priced no lower than a price floor (*e.g.*, Texas, California, Nevada). SBC Info. Req. at 134-169.

102. Following Commission precedent, we begin our analysis by examining SBC's and AT&T's market share, and supply and demand factors. In general, the market share calculations indicate a high level of concentration in most franchise areas in SBC's states for all relevant services.[307] Within SBC's franchise areas, its median market share for local services increases from **[REDACTED]** percent to **[REDACTED]** percent,[308] with a post-merger market share range of **[REDACTED]** percent to **[REDACTED]** percent. Similarly, within SBC's franchise areas, its median market share of long distance services will increase from **[REDACTED]** percent to **[REDACTED]** percent, with a post-acquisition market share range from **[REDACTED]** percent to **[REDACTED]** percent.[309] Finally, within SBC's franchise areas, its median market share for bundled local and long distance services will increase from **[REDACTED]** percent to **[REDACTED]** percent, with a post-acquisition market share range of **[REDACTED]** percent to **[REDACTED]** percent.[310] Because these market shares suggest potentially problematic levels of concentration, we must next evaluate other aspects of the market.

[307] We discuss the Applicants' market shares before and after the merger instead of HHIs for each geographic market because we do not have sufficient market share information for all of the significant competitors in these markets. Market share calculations for each of SBC's franchise areas are provided in Confidential Appendix D. Our analysis of concentration in the mass market relies upon data for residential customers because of the administrative difficulty of distinguishing small business data from data for other classes of businesses. The Commission has previously found that residential and very small businesses have similar patterns of demand, are served primarily through mass marketing techniques, purchase similar volumes and communications services, and would likely face the same competitive alternatives within a geographic market. Thus, we conclude that an analysis of market share of residential consumers is likely to accurately represent SBC's position in the mass market. *Cf. Bell Atlantic/NYNEX Order*, 12 FCC Rcd at 20016, para. 53 (discussing similarities between residential and small business customers); *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, Third Report and Order and Fourth Further Notice of Proposed Rulemaking, 15 FCC Rcd 3696, 3829, para. 293 (1999) (discussing similarities between residential and small business customers in the context of unbundling rules); *SBC/Ameritech Order*, 14 FCC Rcd at 14746, para. 68 (including residential and small business customers in the same market).

[308] We estimate total residential local access lines in each relevant geographic market by summing the number of wireline local access lines (*i.e.*, residential resold lines, residential UNE-P lines, non-SBC residential E-911 listings, and SBC's residential access lines) and an estimate of the number of residential wireless-only lines. We estimate residential wireless-only lines in two steps. First, we assume that the total number of all local access lines is the number of landline residential lines in SBC's franchise areas divided by 94% (100% minus that 6% of residential customers that rely solely on wireless). Second, we estimate the number of wireless-only lines by taking the difference between the estimate of the total number of local access lines and the total number of wireline local access lines. We estimate SBC's share of the residential wireless-only lines by multiplying the estimate of residential wireless-only lines by an estimate of Cingular's share of mobile wireless based upon mobile wireless lines in the NRUF database. Facilities-based VoIP lines will be captured in the E-911 listings. We note that, although we do not intend to include over-the-top VoIP subscribers in our market share calculations (because we are unable to determine which services fall within our relevant product market), subscribers to some of these services may be included in the E-911 listings, and thus included in our market share calculations.

[309] Our calculations for the long distance market include only those consumers with a wireline long distance presubscribed carrier. We have no information to estimate the extent to which consumers may be able to migrate long distance minutes to their mobile wireless service or prepaid calling cards. Thus, we recognize that these market shares are likely to overstate SBC's share of the long distance market.

[310] With respect to bundled local and long distance market shares, we follow a methodology similar to that employed in calculating SBC's share of local services, described above. *See supra* note 308. In this case, however, we exclude consumers who do not have a PIC or who subscribe to an interexchange carrier other than their local service provider. Post-merger, we assume SBC's local customers who have AT&T as their presubscribed interexchange carrier will migrate to SBC. Thus, our estimate overstates SBC's relative position post-acquisition to the extent that (continued....)

103. Although we agree with commenters that the Applicants' post-merger market shares for the relevant products are high,[311] we nonetheless find, for the reasons given below, that these numbers significantly overstate the likely competitive impact of the merger. Regardless of what role AT&T played in the past, we conclude that AT&T's actions to cease marketing and gradually withdraw from the mass market mean it is no longer a significant provider (or potential provider) of local service, long distance service, or bundled local and long distance service to mass market consumers.[312] We base this conclusion on AT&T's cessation of marketing, its reductions in consumer operations, its retirement of infrastructure used to support mass market marketing and consumer care for mass market services, and its decision to "harvest" its mass market business by raising prices, resulting in a declining mass market customer base.[313] The record indicates that AT&T's decision was the result of its own internal deliberations after determining that it would be uneconomical for it to continue to offer mass market services.[314] We reject as speculative and unrealistic commenters' suggestion that AT&T could readily and easily reverse its decision.[315] The record demonstrates that once AT&T determined that mass market services were no longer a viable business opportunity, it implemented steps to close down its mass market operations in an orderly fashion, and there is no indication that, absent the merger, AT&T would reverse this decision.[316] Thus, we agree with the Applicants that AT&T ceased being a significant

(Continued from previous page)
SBC local/AT&T long distance consumers switch to an alternative interexchange carrier or AT&T's local customers switch to a competitive provider.

[311] *See, e.g.*, Cbeyond *et al.* Petition at 34-35; Consumer Federation *et al.* Petition at 19-22; Nevada DOJ Comments at 5-6; Texas OPC Comments at 4.

[312] AT&T states that it found it difficult to compete for mass market local exchange customers for a variety of reasons, including competition from facilities-based intermodal providers, such as cable companies and wireless carriers; competition from other VoIP providers; competition from other wireline carriers; and the D.C. Circuit's vacatur of the unbundling rules set forth in the *Triennial Review Order*, to which the Commission responded by phasing out competitive LEC access to UNE-P at TELRIC prices. *See, e.g.*, SBC/AT&T Application at 50-52; Polumbo Declaration at paras. 6-10; SBC/AT&T Application, Declaration of Thomas Horton (SBC/AT&T Horton Decl.) at para. 7.

[313] *See* SBC/AT&T Application, Declaration of John Polumbo (SBC/AT&T Polumbo Decl.) at paras. 3-40; AT&T Info. Req., Exhs. 16(b)-I, 16(b)-IV; *see also* AT&T Info. Req., ATT551002844-51, ATT5600000524-90. "Harvesting" refers to AT&T's increasing prices to encourage customers to discontinue service. "Harvesting" refers to AT&T's steps to manage the decline in its mass market business. *See, e.g., Q4 2004 AT&T Earnings Conference Call on Jan. 20, 2005* at 9 (Jan. 20, 2005) *available at* http://www.att.com/ir/pdf/4q04_transcript.pdf ("in our consumer business the revenue decline will accelerate from '04 as we've moved to harvest that business as a result of the regulatory changes effective middle of last year").

[314] *See* SBC/AT&T Polumbo Decl. at paras. 3-9; *see also* AT&T Info. Req., ATT551002844-51, ATT5600000524-90. The record does not indicate whether AT&T was continuing to offer mass market prepaid calling cards. Because we find that prepaid calling cards are of diminishing importance for domestic long distance services, we conclude that, even if AT&T continued to have a role in that market, it is of limited significance. AT&T's significance is diminished further by the ability of other competitors to provide such services, given continued competition and excess capacity for wholesale interexchange services. *See infra* Part V.F (Wholesale Interexchange Competition). In addition, we note that the record indicates that IDT is a leading provider of prepaid calling card services, and that other carriers and resellers operate in this market. SBC/AT&T Application at 65 n.212.

[315] *See, e.g.*, ACN *et al.* Petition at 25; Cbeyond *et al.* Petition at 31; Qwest Bernheim Decl. at para. 77; EarthLink White Paper at 10.

[316] *See* SBC/AT&T Horton Decl. at paras. 2-7; SBC/AT&T Polumbo Decl. at paras. 3-40; AT&T Info. Req., ATT551002844-51, ATT5600000524-90.

participant in this market.[317] We note that the record evidence further indicates that SBC's current and future pricing incentives are based more on likely competition from intermodal competitors and the remaining competitive LECs.[318]

104. Finally, we reject commenters' arguments that consumers will be worse off after the merger. Qwest argues that AT&T's customers would be better off if SBC had to compete for their business. [319] First, as stated above, AT&T ceased to act as a significant competitive presence in the market a year ago when it began to implement its strategy to harvest its customer base. Second, AT&T's customers will not necessarily be worse off after the merger because SBC (or other incumbent LECs outside of SBC's region) and the remaining competitive providers will continue to compete for customers (AT&T's former customers as well as each other's customers).[320] Third, AT&T's customers are free to seek service from whichever providers are present in the market.[321] As noted, we find that intermodal competitors, including facilities-based VoIP and mobile wireless providers, are likely to capture an increasing share of mass market local and long distance services. In addition, we take further comfort from the Applicants' voluntary commitment to offer stand-alone DSL[322]

[317] For the same reasons, we conclude that AT&T has ceased to operate as a significant competitor for mass market broadband services. AT&T Info. Req. at 52-53. Further, the record indicates that AT&T has only a limited consumer DSL customer base, with **[REDACTED]** customers nationwide. AT&T June 17 *Ex Parte* Letter, Suppl. Exh. 1; *see also* EarthLink White Paper at 27 n.65 (stating that AT&T "has not yet achieved significant *actual* competition with a critical mass of DSL customers"). We also note that AT&T provides its DSL service "by leasing wholesale services from unaffiliated DSL providers" such as Covad, New Edge, and MegaPath. AT&T Info. Req. at 54. Given that AT&T offers DSL through such wholesale arrangements, we conclude that other competitors will be equally able to do so post-merger. Thus, as with mass market voice services, we find that the merger is not likely to result in anticompetitive effects for mass market broadband services through either unilateral or coordinated effects. *See, e.g.*, Consumer Federation *et al.* Petition at 3-9 (expressing concern about competitive effects with respect to broadband services).

[318] AT&T's decision to shut down its mass market operations indicates it was not a potential purchaser of third party UNE-P substitute products, as some commenters claim. The elimination of UNE-P was a significant factor in AT&T's decision, but we reject commenters' suggestion that this implies other wireline competitive LECs would also find it unprofitable to serve this market. *See, e.g.*, Qwest Petition at 34. While certain commenters express concern about their ability to offering competing service based on current TELRIC rates for unbundled DS0 loops, such concerns are not merger specific. Telscape Comments at 5-6; Letter from Ross A. Buntrock, Counsel for Fones4All, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 05-65 at 2-3 (filed Sept. 7, 2005); Letter from Richard M. Rindler, Counsel for TDS Metrocom, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 05-65 at 1-2 (filed Sept. 30, 2005).

[319] Qwest Bernheim Decl. at paras. 76-77.

[320] *See, e.g.*, SBC/AT&T Reply at 104. We note that Cbeyond *et al.*'s claims of a likely price increase for residential long distance and bundled services are flawed because their analysis does not consider competition from intermodal competitors. Moreover, this analysis incorrectly assumes AT&T is a competitive force in the market because of its legacy market share and thus overstates AT&T's significance in the market by failing to account for the fact that AT&T no longer is a significant market participant. Cbeyond *et al.* Wilkie Decl. at paras. 41-48.

[321] SBC/AT&T Reply at 102.

[322] Because we find this commitment will serve the public interest, we accept it and adopt it as a condition of our approval of the merger, as discussed below. *See infra* Part VII (Process and Enforcement).

105. *Coordinated Effects.* We also find that SBC's acquisition of AT&T is unlikely to result in anticompetitive effects through coordinated interaction among remaining competitors. Given our finding that AT&T is not a significant market participant, we find no indication that the proposed acquisition increases the likelihood of coordinated interaction for the relevant products. Moreover, the increasing trend toward bundled service offerings likely decreases the possibility of coordinated interaction. Because of the complexity and variety of the bundled local and long distance service offers, competitors will find it difficult to coordinate on prices.[323]

106. *Mutual Forbearance.* For the same reasons as discussed above with respect to claims of possible coordinated effects, we do not believe that the merger is likely to result in anticompetitive effects for mass market services in Verizon's region. While some commenters claim that the merged company will have the incentive to forbear from mass market competition in Verizon territories, as stated above, we note that AT&T had already had decided to cease marketing and to harvest its customers nationwide.[324]

b. Vertical Effects

107. We are also not persuaded by commenters' claims that the merger will increase the merged entity's incentive and ability to raise the costs of mass market rivals.[325] We discussed these vertical concerns in our analyses of the wholesale special access market and other sections of this Order.[326]

E. Internet Backbone Competition

108. We next turn to the potential competitive effects of the proposed merger on Internet backbone services. We find that the proposed merger of SBC and AT&T is not likely to result in anticompetitive effects in the Internet backbone market. We also conclude that, while the merger may result in the loss of a potential Tier 1 backbone competitor and in significant vertical integration, the record does not support commenters' conclusions that the merger will "tip" the backbone market to duopoly, increase transit prices to supra-competitive levels, or lower service quality. In addition, we find insufficient evidence in the record to conclude that the merged firm will engage in packet discrimination or degradation against rivals' VoIP, video over IP, and other IP-enabled services. Although we find no

[323] The difficulties in coordinating actions may be exacerbated not only by the bundling of local and long distance services but also by the offering of discounts to consumers that purchase additional services from the providers. *See, e.g., DOJ/FTC Guidelines* § 2.1.1 ("Reaching terms of coordination may be limited or impeded by product heterogeneity or by firms having substantially incomplete information about the conditions and prospects of their rivals' businesses, perhaps because of important differences among their current business operations. In addition, reaching terms of coordination may be limited or impeded by firm heterogeneity, for example, differences in vertical integration or the production of another product that tends to be used together with the relevant product.").

[324] *See supra* para. 103.

[325] *See, e.g.*, Cox Comments at 13-17 (expressing concern that the merged company would have increased incentive and/or ability to raise rivals' costs with respect to Internet backbone and transport wholesale inputs); United States Cellular Comments at 2-4 (expressing concerns about discrimination against competing wireless carriers in the pricing and/or provisioning of wholesale inputs); T-Mobile Reply at 7-14 (expressing concern about the merger's effects with respect to special access and wholesale interexchange services).

[326] *See supra* Part V.B (Wholesale Special Access Competition); *infra* Part V.E (Internet Backbone Competition); *see also supra* Part V.C.2.b (dismissing concerns about vertical effects relating to the wholesale interexchange market).

likely anticompetitive effects for Internet backbone and related services as a result of the merger, we note that the Applicants have put forward on the record of this proceeding several commitments, which we find to be in the public interest. As described further in this section, the commitments relate to maintaining settlement-free peering arrangements after the merger, publicly posting peering policies, and complying with the principles of the Commission's September 23, 2005 Policy Statement[327] designed to ensure that broadband networks are widely deployed, open, affordable, and accessible to all consumers. Because we find these commitments will serve the public interest, we accept them and adopt them as conditions of our approval of the merger.

1. Background

109. The Internet is an interconnected network of packet-switched networks. End users (individuals, enterprise customers, and content providers) typically, though not always, obtain access to the Internet through Internet service providers (ISPs) using a "dial-up" modem, cable modem, DSL, wireless network, or a dedicated high-speed facility (which the companies often call "Dedicated Internet Access" (DIA)).[328] ISPs provide access to the Internet on a local, regional, or national basis, and most have limited network facilities. In order to provide Internet service to end users, ISPs and owners of other smaller networks interconnect with Internet backbone providers (IBPs)—larger Internet backbone networks.[329] The backbone networks operate high-capacity long-haul transmission facilities and are interconnected with each other. Typically, a representative Internet communication consists of an ISP sending data from one of its customers to the IBP that the ISP uses for backbone services. The IBP, in turn, routes the data to another backbone network, which delivers the data to the ISP serving the end user to whom the data is addressed.[330]

110. IBPs may exchange traffic either through "peering" or "transit" arrangements. Under a peering arrangement each IBP "peer" will accept and deliver, without charge, traffic destined either for its own network or for one of its own backbone customers.[331] Transit arrangements, by contrast, permit an ISP,

[327] *See Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, Policy Statement, FCC No. 05-151 (rel. Sept. 23, 2005).

[328] *See, e.g.*, SBC/AT&T Reply, Declaration of Marius Schwartz (SBC/AT&T Schwartz Reply Decl.) at para. 23. IBPs often offer DIA services that include both transit service and a high-capacity connection to their backbone. *See, e.g., id.*

[329] An ISP's traffic connects to a backbone provider's network at a facility called a "point of presence" or "POP." Backbone providers have POPs in many locations, usually concentrated in more densely-populated areas where Internet end users' demands for access are highest. An ISP or end user relies on telecommunications lines to reach distant POPs. We note that large businesses often purchase dedicated lines that connect directly to Internet backbone networks. *See* GAO Report, Characteristics and Competitiveness of the Internet Backbone Market at 4 (Oct. 2001) *available at* http://www.gao.gov/new.items/d0216.pdf (GAO Internet Backbone Report).

[330] Once on an Internet backbone network, digital data signals that were split into separate pieces or "packets" at the transmission point are separately routed over the most efficient available pathway and reassembled at their destination point. The Internet Protocol (IP) Suite is the standard that governs the routing and transfer of data packets on the Internet. GAO Internet Backbone Report, at 6.

[331] For example, if IBP A only has a peering arrangement with IBP B, and IBP B also has a peering arrangement with IBP C, then IBP B will not allow customers of IBP A to send traffic to or receive traffic from customers of IBP C. In order to provide access to customers of IBP C, IBP A must either peer with IBP C or enter a transit agreement, *i.e.*, pay for a connection, with IBP B or IBP C. Decisions about peering are not regulated, but are the product of negotiations in the marketplace.

small or regional IBP, or other corporate business, to reach the entire Internet using dedicated access lines linking it directly to the transit provider's Internet backbone network.[332] An IBP providing transit service enables the customer to send and receive traffic through the purchaser's IBP to any other network or destination on the Internet.[333] Frequently, IBP customers obtain transit packaged with a dedicated high-speed facility as part of a DIA service,[334] with the transit customers paying fees for both the connection and the transit service.[335]

111. IBPs generally can be categorized into tiers based on their size, geographic scope, and interconnections. "Tier 1" IBPs are a small group of the largest IBPs that sell transit and/or dedicated Internet access to substantial numbers of ISPs and corporate customers or other enterprise customers. These Tier 1 IBPs peer with all other Tier 1 IBPs on a settlement-free basis. Lower tier IBPs may peer with each other, but generally must purchase transit from a higher tier IBP to reach end users that are not customers of the networks of their peers.[336]

2. Relevant Markets

a. Relevant Product Markets

112. We find that Tier 1 backbone services—the transporting and routing of packets between ISPs and large enterprise customers and Internet backbone networks – constitutes a separate relevant product market.[337] In this regard, we note key differences in quality and price between the transit and DIA services offered by Tier 1 and lower tier IBPs. For example, lower tier IBPs, ISPs, and multi-location enterprise customers typically seek service from a provider that can serve all their locations, and not all IBPs with POPs in a particular location will have such reach to all other locations. Only Tier 1 providers

[332] That is, in a transit arrangement, an IBP agrees to deliver all Internet traffic that originates or terminates on the paying IBP's backbone regardless of the destination or source of that traffic. If IBP A becomes a transit customer of IBP B, then as a paying customer of IBP B, IBP A is able to send traffic to and receive traffic from IBP C via IBP B's network.

[333] *See WorldCom/MCI Order*, 13 FCC Rcd at 18106, para. 146.

[334] *See, e.g.*, Broadwing and SAVVIS Comments, Declaration of Gary Zimmerman (SAVVIS Zimmerman Decl.) at para. 5; Letter from David L. Lawson, Counsel for AT&T, to Marlene H. Dortch, Secretary, FCC at 2-3 (filed June 17, 2005) (AT&T June 17 *Ex Parte* Letter).

[335] Some IBPs also offer "paid peering," where the "paid peer" pays on a volume basis to exchange traffic, but the quality of interconnection is similar to settlement-free peering. By contrast, traffic exchanges involving a transit provider may experience up to nine inter-network connections, or "hops," over the originating, transiting, and terminating networks, reducing efficiency and reliability and increasing latency and potential packet loss. SBC/AT&T Rice Decl. at para. 11.

[336] IBPs establish a variety of peering criteria that are used when deciding whether to begin peering with, or to continue peering with, other IBPs. These criteria generally specify factors such as ratios of traffic exchanged between the backbones, the geographic scope and capacity of the peering network's backbone facilities, and the number of interconnection points, among other things. *See, e.g.*, Letter from A. Sheba Chacko, Chief Regulatory Counsel, BT Americas, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 05-65, 05-75, Attach. at 15 (filed June 13, 2005) (BT Americas/SAVVIS June 13 *Ex Parte* Letter); SBC/AT&T Reply, Declaration of Susan Martens (SBC/AT&T Martens Reply Decl.) at para. 7.

[337] *See, e.g.*, SBC/AT&T Application, Declaration of Marius Schwartz (SBC/AT&T Schwartz Decl.) at para. 8; Broadwing and SAVVIS Petition at 36; *see also WorldCom/MCI Order*, 13 FCC Rcd at 18106, para. 148.

can offer such a high level of ubiquitous service. We find that there are no substitutes for these Tier 1 connectivity services sufficiently close to defeat or discipline a small but significant nontransitory increase in price.[338]

113. We decline to adopt EarthLink's suggestion that we define an additional product market of "end-to-end connectivity" to reflect the fact that the merged company, after the merger, will be the first IBP to own and operate a network that is fully vertically integrated from the end user's premises to the termination facility that connects the user with his or her destination on the Internet.[339] First, it is not clear how such a market differs from the retail ISP market.[340] From the perspective of end users, the purchase of Internet access, whether broadband, narrowband, or DIA, is the purchase of access to the world, *i.e.*, the purchase of end-to-end service. To the extent that EarthLink's real concern is the vertical integration created by the merger, we need not define an "end-to-end connectivity" market to analyze these effects.

b. Relevant Geographic Markets

114. Consistent with Commission precedent and the DOJ's previous findings, we analyze the market for Tier 1 IBPs using a national geographic market.[341] As with special access, enterprise, and mass market services, we conclude that the relevant geographic market for Tier 1 IBP services is the customer's location.[342] We then aggregate locations where customers face similar competitive choices. Since all Tier 1 IBPs have extensive nationwide networks, we can aggregate Tier 1 customers throughout the United States since they effectively face the same choice of Tier 1 IBPs anywhere in the United States. Moreover, purchasers of Tier 1 Internet backbone service generally need the ability to connect at multiple locations throughout the United States. Consequently, we find it appropriate to aggregate customer locations and evaluate Tier 1 backbone services at the national level.

c. Market Participants

115. Based on the record evidence, we find that there likely are between six and eight Tier 1 Internet backbone providers based on the definition of Tier 1 backbones that has been used in the past:[343] AT&T, MCI, Sprint, Level 3, Qwest, Global Crossing, and likely SAVVIS and Cogent.[344] These eight providers

[338] *See DOJ-WorldCom/Sprint Complaint* at para. 31.

[339] *See, e.g.*, EarthLink Petition at 8-9, 11.

[340] Letter from Gary L. Phillips, SBC, and Lawrence J. Lafaro, AT&T, to Gary Remondino, Wireline Competition Bureau, FCC, WC Docket No. 05-65 at 5-7 (filed July 6, 2005) (SBC/AT&T July 6 *Ex Parte* Letter).

[341] *WorldCom/MCI Order*, 13 FCC Rcd at 18106, para. 148; *DOJ-WorldCom/Sprint Complaint* at para. 31.

[342] *See supra* Parts V.B (Wholesale Special Access Competition), V.C (Retail Enterprise Competition), V.D (Mass Market Competition).

[343] The DOJ defines a Tier 1 provider as a provider that (i) has high-capacity networks nationwide or internationally and (ii) settlement-free interconnection arrangements with all other Tier 1 providers. *See DOJ-WorldCom/Sprint Complaint* at para. 27.

[344] *See* SBC/AT&T Schwartz Decl. at para. 20. **[REDACTED]** When identifying Tier 1 IBPs, we focus on Internet backbone providers with significant domestic operations because Tier 1 backbone customers are unlikely to turn to any foreign providers that lack these domestic operations in response to a small but significant and nontransitory increase in price by domestic Tier 1 IBPs. *DOJ-WorldCom/Sprint Complaint* at para. 31.

offer dedicated Internet access and transit services primarily to ISPs and enterprise customers, and they generated **[REDACTED]** in revenues in 2003, the most recent year for which data is available.[345] In choosing an IBP, ISP and enterprise customers seek the lowest price, highest quality, and broadest geographic reach consistent with their needs, and these Tier 1 backbone providers compete vigorously on these bases.

3. Competitive Analysis

116. For the reasons given below, we find that the merger is not likely to result in anticompetitive effects either through unilateral action by the merged entity or possible tipping of the Tier 1 Internet backbone market to a monopoly or duopoly. We also find it unlikely that the remaining Tier 1 IBPs would engage in coordinated interaction as a result of the merger. Finally, we are not persuaded that the vertical aspects of the proposed merger would increase the merged firm's incentive and ability to raise rivals' costs by discriminating against the IP traffic of its broadband competitors or by raising the price of special access services to its backbone competitors.

117. The Internet backbone market is characterized by "direct network effects," where the value of the network increases with each additional user who joins it."[346] So long as there is "rough equality" among backbone providers, each has an incentive to peer with the others to provide universal connectivity to the Internet.[347] In the proposed *WorldCom/Sprint* merger, the DOJ concluded, however, that the incentives of the peering backbones would change if one backbone provider were to become significantly larger than the others, or if it were to develop greater negotiating power.[348] This dominant provider might be able to "tip" the Internet backbone market into monopoly and then raise prices for all transit services.[349] Once the market begins to "tip," connecting to the dominant network becomes even more important to competitors, enabling the dominant network to further raise its rivals' costs.[350] By contrast, in a market where each backbone provider derives roughly equal benefit from settlement-free access to the other backbone providers' customers, the incentive to cooperate will predominate and the market participants will peer with each other. If terminating a peering relationship would hurt one backbone provider significantly less than the others, however, then the first backbone provider could credibly demand payment.[351] Thus, because of these strong network effects, the Commission and the

[345] *See* Letter from Thomas F. Hughes, Vice President-Federal Regulatory, SBC, to Gary Remondino, Wireline Competition Bureau, FCC, WC Docket No. 05-65, Attach. (filed July 22, 2005) (SBC July 22 *Ex Parte* Letter) (providing DIA revenues and upstream transit revenues).

[346] *See DOJ-WorldCom/Sprint Complaint* at para. 36; Jacques Crèmer *et al.*, *Connectivity in the Commercial Internet*, 48 J. IND. ECON. 433, 458-60 (2000).

[347] *See DOJ-WorldCom Sprint Complaint* at para. 41.

[348] *See id.* at paras. 40-41.

[349] *See id.*; *see also WorldCom/MCI Order*, 13 FCC Rcd at 18108-09, para. 150.

[350] *DOJ-WorldCom/Sprint Complaint* at para. 41 ("As a result of an increase in their costs, rivals may not be able to compete on a long-term basis and may exit the market. If rivals decide to pass on these costs, users of connectivity will respond by selecting the dominant network as their provider. Ultimately, once rivals have been eliminated or reduced to customer status, the dominant network can raise prices to users of its own network beyond competitive levels. Once this occurs, restoring the market to a competitive state often requires extraordinary means, including some form of government regulation.").

[351] *See id.* at paras. 33-41.

DOJ have focused on whether a merger between two Tier 1 IBPs is likely to lead the Internet backbone market to tip into a situation in which one or two backbones dominate.

118. We begin our horizontal analysis by examining the relative market shares of the Tier 1 IBPs and conclude that the proposed merger would not create a backbone provider of sufficient size to cause tipping. We next consider and reject various arguments raised by commenters suggesting that, as a result of the merger, SBC/AT&T would have a unique incentive and ability to engage in a strategy of targeted de-peering, leading eventually to its dominating the backbone market.

a. Horizontal Effects of the Merger

119. *Unilateral Effects – Traditional Analysis of Tipping.* In the proposed *WorldCom/MCI* merger, the Commission and the DOJ concluded that the merged entities, absent divestiture, would have been so large relative to other Tier 1 IBPs as to raise a significant danger of tipping.[352] In contrast, as discussed below, we find here that the Tier 1 market has since become less concentrated such that the proposed merger will not create a dominant backbone provider. Accordingly, we agree with the Applicants that, based on current market shares, the proposed merger is not likely to cause tipping into monopoly or other competitive effects.

120. Various commenters contend that the proposed merger would create a dominant Tier 1 backbone monopoly or duopoly, threatening the currently competitive market for Internet backbone services.[353] Commenters claim that the merger will result in an increase in the merged firm's market share with a corresponding reduction of the Internet backbone market shares of competing Tier 1 providers.[354]

121. The Applicants respond that the proposed merger will not reduce competition in the Internet backbone market, because SBC is not a Tier 1 backbone provider, and the combination of SBC's backbone with AT&T's backbone will not significantly increase AT&T's market share.[355] The Applicants further contend that the Tier 1 Internet backbone market has become significantly less concentrated and more competitive in the years since the Commission last addressed a merger involving the Internet backbone.[356] The Applicants maintain that this characterization of the market holds true, regardless of whether market shares are calculated using traffic,[357] revenues,[358] or autonomous systems

[352] The DOJ also reached this conclusion with respect to the *WorldCom/Sprint* merger. *DOJ-WorldCom/Sprint Complaint* at para. 35.

[353] *See, e.g.*, EarthLink Petition at 3-7; Earthlink Reply at 3; BT Americas Reply at 24-29; CompTel/ALTS Petition at 32-36; Broadwing and SAVVIS Petition, Declaration of Dr. Mathew P. Dovens (SAVVIS Dovens Decl.) at paras. 16-17.

[354] EarthLink Petition at 4-5 (contending that SBC/AT&T's backbone market share would be 20%, three times larger than that of its nearest competitors (except MCI and Sprint) and this could enable SBC/AT&T to discriminate against rival backbone providers).

[355] SBC/AT&T Schwartz Decl. at paras. 20, 30.

[356] SBC/AT&T Application at 107-08; SBC/AT&T Schwartz Decl. at para. 22, Table 2.

[357] SBC/AT&T Schwartz Decl. at paras. 21-23.

[358] *Id.* at para. 26, Table 3; *see also id.* at para. 31.

(AS) connections.[359] They also emphasize that the backbone market is characterized by considerable volatility, which is demonstrated by the fact that the identity of the top-ranked firm changed twice between January 2003 and May 2004.[360]

122. As a preliminary matter, we note that no complete and reliable data sources are available to measure relative shares of Internet backbone providers. Nor does it appear that any single measure uniquely captures the relative size and importance of competing Internet backbone providers. As noted, the Applicants present data on relative shares in three ways: revenues, AS connections, and traffic flows. We do not agree, however, with the way that the Applicants calculated key revenue and traffic share percentages. Among other things, the Applicants appear to define the market to include non-Tier 1 and non-U.S. firms, which has the effect of diluting their estimated market shares.[361] In addition, the Applicants' methodology for calculating market share double counts the traffic and revenue of lower tier providers and does not appear to account fully for SBC's current DIA and backbone revenues. The traffic data submitted by the Applicants do not permit us to correct for the market definition and double counting errors and to recalculate market shares based on traffic and, as the Applicants acknowledge, there are problems with using AS connections.[362] Therefore, using available revenue data, and using revenue shares as a proxy for firm size, we recalculated the market shares of the top eight Tier 1 backbone providers.[363] In calculating these shares, we adjusted the revenues for Sprint, Level 3, and Qwest to reflect that SBC and Verizon will not continue to pay transit to such providers; we also estimated SBC's and Verizon's 2003 transit payments based on 2004 actual payments.

123. We are satisfied that the proposed merger will not increase horizontal concentration to such an extent that it is likely to result in anticompetitive effects in the Internet backbone market. As noted above, there are at least six, but potentially as many as eight, Tier 1 backbone providers – AT&T, MCI, Sprint, Qwest, Level 3, Global Crossing, and by some measures, SAVVIS and Cogent. Based on the 2003 revenue data submitted by the Applicants, the merged entity's revenue share would increase by a modest **[REDACTED]** to approximately **[REDACTED]** even accounting for the market share changes

[359] An Autonomous System (AS) "is either a single network or group of networks controlled by a common administrator on behalf of a single organizational entity (such as a university, business, or an IBP). An AS is assigned a globally unique number, sometimes referred to as an Autonomous System Number, or ASN. The number of 'AS connections' refers to the number of other [Autonomous Systems] to which a given AS is connected." SBC/AT&T Schwartz Decl. at para. 28 n.17.

[360] SBC/AT&T Schwartz Decl. at para. 24.

[361] *See, e.g.*, SBC/AT&T Schwartz Decl. at para. 22, App. 2. For similar reasons, we reject the market share calculations proposed by BT Americas. *See* Letter from A. Sheba Chacko, Chief Regulatory Counsel, BT Americas, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 05-65, 05-75, Attach. at 9-11 (filed Oct. 7, 2005) (BT Americas White Paper) (utilizing "extrapolation technique" employed by the Applicants to calculate market shares).

[362] SBC/AT&T Schwartz Decl. at paras. 27-29.

[363] Although we use revenues, because it is the best evidence in the record, we are not suggesting that this is the only way or most appropriate or accurate way to measure market share.

associated with the proposed Verizon/MCI merger.[364] The post-merger HHI is **[REDACTED]** and the change in HHI would be **[REDACTED]**[365]

124. We further find that the merger does not change the market ranking of the Tier 1 backbones, and several Tier 1 competitors with significant market shares would remain in the market post-merger. Further, the merger does not remove an existing Tier 1 provider, as SBC does not appear to have yet attained that status.[366] In addition, we note that some backbone providers appear to have higher shares of traffic than of revenue.[367] In particular, we note that 2004 data submitted by the Applicants confirm that Level 3's share of Internet traffic had surpassed AT&T's.[368] Finally, we observe that the market shares for Tier 1 backbones have fluctuated over time, suggesting that the market is both competitive and dynamic. Therefore, we agree with the Applicants that the proposed merger is unlikely to create a single dominant Tier 1 Internet backbone provider with a market share that is overwhelmingly disproportionate to its rivals, which was the key concern in prior backbone mergers.

125. *Unilateral Effects – Other Factors that Might Lead to Tipping.* We next consider whether there are other factors that could lead the merged company to engage in targeted de-peering or to degrade the quality of backbone interconnection.[369] We examine commenters' claims first by assessing the merged firm's incentives to pursue de-peering strategies, and then by exploring whether adverse competitive effects are likely to arise from traffic imbalances or relative market shares. As explained below, we conclude that the merged firm is unlikely to have the incentive and ability to de-peer a sufficient number of its backbone rivals to "tip" the market to monopoly or duopoly. Moreover, we conclude that, while certain smaller Tier 1 backbone providers might be de-peered (with or without the proposed merger), it is unlikely that the merger will result in anticompetitive effects. In addition, as discussed below, we take further comfort from certain commitments the Applicants have made relating to their peering practices.

126. *"Eyeballs" vs. Content.* We are not persuaded by commenters' argument that AT&T's acquisition of SBC's residential broadband, voice, and wireless customers will alter the merged company's incentives to maintain AT&T's peering relationships.[370] These commenters argue that AT&T's acquisition of these SBC "eyeball" customers will give the merged entity significant negotiating

[364] *See* Confidential Appendix E, Table 1.

[365] Commenters express concern about relying on 2003 revenue data, asserting that the data are outdated and do not reflect possible growth in IP-enabled services. Broadwing and SAVVIS Petition at 17; CompTel/ALTS Petition at 29; EarthLink Reply at 8; Letter from Christopher J. Wright *et al.*, Counsel for Broadwing and SAVVIS, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 05-65, 05-75 at 4 n.10 (filed Aug. 12, 2005) (Broadwing and SAVVIS Aug. 12 *Ex Parte* Letter). We believe that the 2003 data provide a reasonable basis for our decision. The Applicants have also submitted more recent evidence on relative size and significance as measured by peering capacity that appears consistent with the above conclusions. *See* SBC/AT&T Martens Reply Decl. at paras. 17-19.

[366] As we discuss below, we also find that the merger is not likely to adversely affect Tier 1 backbone competition through the loss of SBC as a potential Tier 1 IBP.

[367] *See* Letter from David L. Lawson, Counsel for AT&T, to Gary Remondino, Wireline Competition Bureau, FCC, Attach. (filed Apr. 22, 2005) (SBC/AT&T Apr. 22 *Ex Parte* Letter).

[368] SBC/AT&T Schwartz Reply Decl. at para. 12.

[369] *See, e.g.*, SAVVIS Dovens Decl. at paras. 19-24; BT Americas Reply at 24.

[370] *See, e.g.*, SAVVIS Dovens Decl. at paras. 19-24.

leverage over other Tier 1 backbones that have more "content" customers than "eyeball" customers.[371] Ultimately, commenters claim that the proposed merger will give the merged company new incentives and/or an increased ability to serially de-peer its rivals, degrade the quality of interconnection among backbones, and increase transit prices to disadvantage its backbone rivals and/or retail competitors served by competing Internet backbones (even at the expense of its wholesale backbone business).[372]

127. We are not persuaded by opponents' argument that peering incentives may change because AT&T's backbone will acquire more "eyeballs" as a result of the merger. First, as to possible global de-peering of all other Tier 1 IBPs (or all others except Verizon/MCI) the percentage of "eyeballs" currently associated with SBC DSL customers is relatively small compared with the total number of broadband "eyeballs" nationwide, and, as the Applicants point out, SBC only has approximately 16 percent of all broadband "eyeballs."[373] In addition, there are other Tier 1 backbones with access to significant numbers of their own "eyeball" customers that plan to expand that customer base (*e.g.*, by offering broadband and 3G wireless services).[374] Thus, even if "eyeballs" confer additional leverage in peering negotiations as commenters claim, other Tier 1 backbones besides SBC/AT&T and Verizon/MCI either currently have, or have the potential to acquire, significant numbers of broadband "eyeballs" to rival SBC and Verizon. Second, if SBC/AT&T were to de-peer a backbone that served a major cable company or ISP with broadband "eyeballs," it seems unlikely that the cable company or ISP would switch to a vertically

[371] Commenters assert that when certain customers ("eyeball" customers), such as residential DSL customers, access the Internet, they typically receive much more traffic than they transmit because, for example, a residential customer's query for a Web page generates little outgoing traffic, but could generate significant incoming traffic when the Web page downloads. Conversely, commenters claim that certain Internet backbone customers, such as Internet content providers, transmit much more content than they receive ("content" customers). *See, e.g.*, SAVVIS Dovens Decl. at paras. 19, 21-24.

[372] *See, e.g.*, Broadwing and SAVVIS Petition at 51-54; Cox Comments at 14; CompTel/ALTS Petition at 33; EarthLink Petition at 6-9; EarthLink July 15 *Ex Parte* Letter at 3-19; Consumer Federation *et al.* Petition at 23-24.

[373] SBC/AT&T Schwartz Reply Decl. at Table 4. Moreover, cable companies collectively control more broadband eyeballs than do all the incumbent LECs combined. Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division, *High-Speed Services for Internet Access: Status as of December 31, 2004*, at 6 (rel. July 7, 2005). Some commenters note that "eyeballs" come from SBC's dial-up Internet access customers as well. However there likewise are many more customers that subscribe to competing dial-up ISPs nationwide than subscribe to SBC's service. SBC Info. Req., Exh. 13(b)(1). While EarthLink asserts that certain competing dial-up Internet access providers purchase service from SBC that includes both last-mile service and transport on SBC's backbone, *see* Letter from John W. Butler, Counsel for EarthLink, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 05-65, 05-75, Attach. at para. 14 (EarthLink Collins Decl.) (filed Aug. 26, 2005) (EarthLink Aug. 26 *Ex Parte* Letter), we note that competing ISPs also can purchase wholesale offerings that include only the last-mile service, and purchase backbone services from other providers. To the extent that EarthLink has concerns about how these various wholesale products are priced today, that is not a merger-specific concern. EarthLink Collins Decl. at para. 15 (stating that "Layer 3" services that include both last-mile service and transport on SBC's backbone are priced lower than "Layer 2" services that include only last-mile service).

[374] For example, as we discuss in greater detail below, the Sprint/Nextel merger creates a backbone with access to significant "eyeball" customers, and Comcast and Google are considering deploying national fiber networks. *See infra* para. 135 & note 405. Further, instant messaging providers, including Microsoft, Yahoo, and Google, as well as other web companies such as eBay, are adding VoIP features to their offerings, and may add additional IM services, as well. In so doing, these IM service providers might attract significant numbers of "eyeball" customers. *See, e.g.*, *EBay's Skype Risk Is a Calculated One*, WASHINGTON POST, Sept. 22, 2005; *MSN Buys Into Net-Calling Future*, CNET News.com, Aug. 30, 2005, *available at* http://news.com.com/MSN+buys+into+Net-calling+future/2100-1032_3-5844873.

integrated backbone provider that competes against it for broadband and VoIP customers, such as SBC or Verizon.[375]

128. Nor are we convinced by opponents' claims that the "stickiness" of "eyeball" customers would largely insulate the merged firm from the "mutual pain" associated with a strategy of degradation and de-peering.[376] Given the widespread availability of competing broadband and narrowband ISP alternatives, it is not clear that SBC/AT&T's "eyeball" customers would prove "sticky" in practice and, in any case, the merged entity would have to weigh carefully the potential for customer churn as a result of degradation strategies.[377] Further, the record indicates that AT&T has been gaining more content

[375] We also reject claims that the SBC/AT&T Internet backbone ultimately will gain the vast majority of content customers. *See, e.g.*, Broadwing and SAVVIS Petition at 48. As preconditions to that occurring, commenters rely on the assertion that the merger will lead to monopoly or duopoly, or that it will result in the SBC/AT&T backbone having a disproportionate share of "eyeballs" and thus engaging in targeted de-peering. *Id.* at 48-51. As discussed above, we find those preconditions unlikely to occur as a result of the merger.

In addition, commenters allege that, because of "inbuilt traffic imbalances," the merged SBC/AT&T would have the ability ultimately to monopolize Internet content because of a possible "hold-up" problem. *See, e.g.*, Letter from Christopher J. Wright, Counsel for Broadwing and SAVVIS, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 05-65, 05-75, Attach. at para. 17 (Broadwing and SAVVIS Wilkie Decl.). They reason that the merged firm would be particularly likely to end settlement-free peering with relatively content-heavy networks. In the context of such targeted de-peering, commenters assert that other backbone providers would factor the risk of de-peering into their bids for the content customers. Commenters claim that as a result, competition for such customers will diminish, creating disincentives for content customers to generate high bandwidth content and applications because the merged companies would increase prices to appropriate the rent from the development of such content. *Id.* We disagree. Given our conclusions above that the merged entity lacks incentives to engage in a strategy of targeted de-peering, we find this result unlikely.

Further, we are not persuaded by BT Americas' claim that the financial condition of other Tier 1 IBPs will lead SBC/AT&T and/or Verizon/MCI to increase their share of the Internet backbone market. *See* BT Americas White Paper at 23-25, 29-30. In any event, even if certain other Tier 1 IBPs are not as financially strong as others, when such situations have arisen in the past, the IBPs have been acquired by other firms and continued to be operated as Tier 1 backbones, or, in the case of MCI, have gone through bankruptcy and still maintained its status as a significant Tier 1 backbone. *See, e.g.*, BT Americas White Paper at 29 (noting SAVVIS' purchase of Cable & Wireless' backbone); *Level 3 to Acquire Genuity Assets and Operations*, (Nov. 27, 2002) (discussing Level 3's acquisition of Genuity) *available at* http://www.level3.com/press/3053.html; *Bankruptcy Judge Approves MCI's Plan of Reorganization*, (Oct. 31, 2003) (discussing MCI's exit from bankruptcy) *available at* http://global.mci.com/about/news/releases/2003/.

[376] *See, e.g.*, Broadwing and SAVVIS Aug. 12 *Ex Parte* at 3, 8-9.

[377] While commenters note that certain contracts with DSL or 3G wireless customers might include early termination fees, *see* Broadwing and SAVVIS Aug. 12 *Ex Parte* Letter at 8, we note that there nonetheless appears to be significant competition for broadband and wireless customers. *See, e.g., Appropriate Framework for Broadband Access to the Internet over Wireline Facilities; Universal Service Obligations of Broadband Providers; Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services; Computer III Further Remand Proceedings: Bell Operating Company Provision of Enhanced Services; 1998 Biennial Regulatory Review – Review of Computer III and ONA Safeguards and Requirements; Conditional Petition of the Verizon Telephone Companies for Forbearance Under 47 U.S.C. § 160(c) with Regard to Broadband Services Provided Via Fiber to the Premises; Petition of the Verizon Telephone Companies for Declaratory Ruling or, Alternatively, for Interim Waiver with Regard to Broadband Services Provided Via Fiber to the Premises; Consumer Protection in the Broadband Era*, CC Docket Nos. 02-33, 01-337, 95-20, 98-10, WC Docket Nos. 04-242, 05-271, Report and Order and Notice of Proposed Rulemaking, FCC 05-150 at paras. 47-64 (rel. Sept. 23, 2005) (*Wireline Broadband Order*) (discussing current and emerging broadband competition); *Petition for Forbearance of the Verizon Telephone* (continued....)

customers for its backbone.[378] Accordingly, we do not find it likely that the merged entity's share of "eyeballs" will create a significant incentive for it to engage in either targeted de-peering or degradation of backbone interconnection.

129. More generally, we are not convinced that the merged firm would gain enough by disadvantaging its Internet access and retail competitors to alter the pre-merger calculus that led to the current peering equilibrium. If the merged SBC/AT&T were to de-peer one or more of its Tier 1 peers, it could not be certain that the targeted backbone would become a transit customer of AT&T or that the customers of the former peer would switch to the SBC/AT&T backbone. The backbone might instead choose to purchase transit from a competing Tier 1 backbone, which would tend to increase the rival's market significance relative to AT&T,[379] and thus, a decision to de-peer could end up primarily benefiting one of AT&T's rivals.[380] We also find that disaffected Internet access providers or retail competitors that were customers of the former peer could choose from a wide range of competing IBPs.[381] Peering and de-peering decisions are driven by a backbone's incentives to maximize network

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Companies Pursuant to 47 U.S.C. § 160(c); SBC Communications Inc.'s Petition for Forbearance Under 47 U.S.C. § 160(c); Qwest Communications International Inc. Petition For Forbearance Under 47 U.S.C. § 160(c); BellSouth Telecommunications, Inc. Petition for Forbearance Under 47 U.S.C. § 160(c), WC Docket Nos. 01-338, 03-235, 03-260, 04-48, Memorandum Opinion and Order, 19 FCC Rcd 21496, 21508, para. 26 (2004) (*Section 271 Broadband Forbearance Order*) (discussing competition for broadband services); *Tenth CMRS Competition Report*, FCC 05-173 at paras. 2-5 (discussing wireless competition); *see also* Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Div., *High-Speed Services for Internet Access: Status as of December 31, 2004* at 6 (rel. July 7, 2005) (specifying relative market shares of cable and DSL); Letter from Brian J. Benison, Associate Director – Federal Regulatory, SBC, to Gary Remondino, Wireline Competition Bureau, FCC, WC Docket No. 05-65, Exh. 13(b)(7) (providing broadband market shares in SBC's region); SBC Info. Req., Exh. 13(b)(1) (providing market shares for numerous dial-up ISP competitors to SBC).

[378] AT&T Apr. 22 *Ex Parte* Letter, Attach. at 4.

[379] *See* SBC/AT&T Reply at 60; SBC/AT&T Schwartz Reply Decl. at paras. 30-31.

[380] Commenters have some difficulty specifying when targeted de-peering, and its effects, might occur. Broadwing and SAVVIS claim that "[a]ny IBP that failed to reach settlement-free peering arrangements would *quickly* lose all its customers to a competitor that could provide universal connectivity." SAVVIS Dovens Decl. at para. 15 (emphasis added). The record indicates, however, that SBC obtained, and retained, Internet backbone customers utilizing the very transit arrangements that commenters decry. *See, e.g.*, SBC/AT&T Schwartz Decl. at paras. 20, 30.

[381] *See, e.g.*, SBC/AT&T July 26 *Ex Parte* Letter at 5. While opponents claim that switching backbone providers is costly and time-consuming, the Applicants assert that major purchasers of backbone services, including cable companies and other large ISPs, could easily switch to competing backbones. *Compare* Cox Comments at 14 (asserting that Cox and other AT&T transit customers could not readily switch backbone providers without loss of significant time, money, and resources) *with* SBC/AT&T Schwartz Reply Decl. at para. 20 (stating that cable operators could shift IBPs, giving those rival backbones a significant share of "eyeballs"). As an example, EarthLink states that it has engineered its network to be in close proximity to its current transit provider, Level 3, and that switching to an alternative backbone provider would require it to purchase special access service to link the EarthLink network to the new backbone provider at multiple locations. EarthLink Collins Decl. at para. 22. EarthLink estimates that the cost to do so initially would involve $2 million for fiber build-out and additional recurring charges of $1 million per year. *Id.* We are persuaded that Internet backbone customers have sufficient ability to switch backbones to provide a check on any potential strategy of targeted de-peering. Particularly given the sophistication of many Internet backbone customers, we find it unlikely that they would allow themselves to be "locked in" to a particular provider. *See, e.g.*, SBC/AT&T Martens Reply Decl. at para. 14 (noting that cable operators seek bids from Internet backbone providers for their services, or self-provide backbone services using (continued....)

efficiency and lower interconnection costs, and we do not see how the proposed merger would materially alter this calculus.

130. *Traffic Imbalances.* Commenters also claim that significant traffic imbalances would flow directly from the proposed merger because "eyeball-heavy" networks generate asymmetric traffic flows with content networks, and because the Applicants have plans to increase the deployment of broadband, video over IP, and 3G wireless products and services.[382] Thus, commenters express concern that current Tier 1 peers (other than similar "eyeball-heavy" networks like the merged Verizon/MCI) would suddenly fail to qualify for peering under current criteria (which generally require a 2:1 traffic ratio).[383] Based on the pre-merger traffic flows it is possible that AT&T, absent the merger, would have had the ability to de-peer some of the smaller Tier 1 backbone providers pursuant to the traffic ratio requirements in its existing peering policy.[384] We note, as a general matter, however, that peering decisions are based on a range of factors,[385] and AT&T explains that it "has not in the past generally enforced the 2 to 1 traffic ratio requirement against carriers that only temporarily or sporadically fall out of balance."[386] While AT&T's traffic ratios with its peers appear to fluctuate considerably, several backbones are close to

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leased facilities). EarthLink's hypothetical example does not convince us otherwise with respect to IBP customers as a whole, regardless of its accuracy for EarthLink itself. Other commenters' concerns regarding the Internet backbone market are predicated on the ease with which customers can switch IBPs. *See, e.g.*, Broadwing and SAVVIS Aug. 12 *Ex Parte* Letter at 8-9 & nn.24-25 (stating that larger IBP customers generally are multi-homed and more readily able to switch IBPs than small IBP customers); BT Americas White Paper at 26-31 (claiming that customers will not be able to prevent anticompetitive behavior by the jointly dominant AT&T and MCI Internet backbones). Indeed, AT&T experiences about **[REDACTED]** churn per month in its DIA customer base, demonstrating customers' ability to switch providers. SBC/AT&T Schwartz Reply Decl. at para. 25. We are persuaded by the record that most backbone customers can readily switch IBPs, even if there are particular customers for which the cost of switching IBPs might be significant.

[382] *See, e.g.*, Broadwing and SAVVIS Petition at 48-51; CompTel/ALTS Petition at 33; Consumer Federation *et al.* Petition at 24; SAVVIS Dovens Decl. at paras. 19, 21-24; Broadwing and SAVVIS Wilkie Decl. at para. 16; BT Americas White Paper at 15-23.

[383] *See id.*

[384] *See* Confidential Appendix E, Table 2 (AT&T pre-merger traffic ratios). Given our conclusions that the merged entity would not have incentives to engage in a strategy of de-peering, we thus reject the concerns of commenters that SBC/AT&T would change AT&T's peering policy as a pretext to de-peer competitors. *See, e.g.*, SAVVIS Dovens Decl. at para. 24.

[385] *See, e.g.*, Michael Kende, Office of Plans and Policy, FCC, *The Digital Handshake: Connecting Internet Backbones* (Sept. 2000) at 8 ("There is no accepted convention that governs when two backbones will or should decide to peer with one another, nor is it an easy matter to devise one. . . . However, there are many measures of backbone size, such as geographic spread, capacity, traffic volume, or number of customers. It is unlikely that two backbones will be similar along many or all dimensions. . . . The question then becomes, how the backbones weigh one variable against another. . . . In sum, peering agreements are the result of commercial negotiations; each backbone bases its decisions on whether, how, and where to peer by weighing the benefits and costs of entering into a particular interconnection agreement with another backbone.") *available at* http://www.fcc.gov/Bureaus/OPP/working_papers/oppwp32.pdf.

[386] Letter from Peter J. Schildkraut, Counsel for SBC, and David L. Lawson, Counsel for AT&T, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 05-65 at 4 (filed Sept. 7, 2005) (SBC/AT&T Sept. 7 *Ex Parte* Letter).

violating the required 2:1 ratio currently, such that small increases in traffic flows from the addition of SBC's IP traffic could put them further out of balance or cause them to fail the traffic ratio criterion.[387]

131. Nevertheless, we disagree with commenters that the proposed merger presents a real danger that *most* settlement-free peering arrangements will dissolve, even under the commenters' traffic imbalance theory.[388] Several competing backbones, **[REDACTED]** have traffic ratios that are well within the required 2:1 threshold and are unlikely to be de-peered based on a failure to meet the balanced traffic ratio requirement. Therefore, even if certain backbones were de-peered, sufficient competition would remain in the Tier 1 backbone market such that transit prices would not be affected.[389] While commenters point to **[REDACTED]**[390] it is not clear that this resulted from the proposed merger.[391] In addition, it does not appear that less significant traffic ratio disparities have led AT&T to request interconnection payments from the several other carriers whose traffic ratios periodically exceeded the required balance.

132. Because we conclude that the Internet backbone market is sufficiently competitive and will remain so post-merger, it follows that the prices and terms of interconnection in the market will also be competitive.[392] We recognize that AT&T's peering policy is not public and that, like all Internet backbone providers, its decisions about the terms of interconnection with other backbone providers are based on prevailing market conditions, including incentives to maximize profits and increase efficiency.[393] In addition, interconnection between Internet backbone providers has never been subject to

[387] *See* Confidential Appendix E, Table 2 (AT&T pre-merger traffic ratios).

[388] *See* Broadwing and SAVVIS Petition at 49-50. Because we conclude that a sufficient number of settlement-free peers will remain post-merger, we therefore need not address factual disputes related to the costs associated with carrying traffic, including whether traffic imbalances impose costs sufficient to justify de-peering. *Compare* Broadwing and SAVVIS Petition at 50 (asserting that the costs associated with carrying traffic are not sufficient to warrant de-peering based on traffic imbalances); Broadwing and SAVVIS Aug. 12 *Ex Parte* Letter at 11 (contending that the traffic ratio requirement has no basis in economic cost) and Wilkie Decl. at para. 9 (asserting that the marginal cost of transporting IP packets is nearly zero) *with* SBC/AT&T Sept. 7 *Ex Parte* Letter at 6 (asserting that the costs associated with traffic imbalances can justify decisions to de-peer other backbones); SBC/AT&T Schwartz Reply Decl. at para. 34 (same).

[389] In this regard, we note that there has been a general downward trend of transit prices in recent years. *See* AT&T Apr. 22 *Ex Parte* Letter, Attach. at 13 (**[REDACTED]**).

[390] Broadwing and SAVVIS Aug. 12 *Ex Parte* Letter at 10 (**[REDACTED]**). SAVVIS also contends **[REDACTED]**. SBC/AT&T Sept. 7 *Ex Parte* Letter at 4-5.

[391] *See* Confidential Appendix E, Table 2 (AT&T pre-merger traffic ratios).

[392] We also find that commenters' concerns related to inefficiencies in the current system of "hot potato" routing and recommendations for reallocating interconnection costs between "eyeball" and "content" backbones based on relative benefits to each backbone's customers are not merger-specific. *See, e.g.*, Cox Comments at 13-14; Cox Reply at 2-3. Moreover, we find that their proposed remedies are beyond the scope of this proceeding as they would reconfigure the routing pattern of the public Internet. *See* Broadwing and SAVVIS Wilkie Decl. at paras. 5-10.

[393] *See* AT&T Info. Req., Exh. 9(a), AT&T Global IP Network Peering Policy, at 1 **[REDACTED]** Many Tier 1 backbone providers publish their peering policies, a practice which we acknowledge has provided some useful transparency in these essentially private business negotiations over interconnection. *See, e.g.*, *SAVVIS Settlement-Free Peering Policy USA* (May 13, 2005) *available at* http://www.savvis.net/NR/rdonlyres/16A6C413-5D9F-405D-B157-BC6DC9A01B52/8264/peering_usa2.doc; *Qwest: International IP Network Peering Policy* (Sept. 14, 2005) *available at* www.qwest.com/legal/peering_int.html; *MCI Policy for Settlement-Free Interconnection with Internet* (continued....)

direct government regulation, and settlement-free peering and degradation-free transit arrangements have thrived. We see no evidence that the merger will alter this dynamic.

133. While we conclude that the merger is unlikely to result in anticompetitive effects with respect to Tier 1 peering arrangements, we nonetheless find that certain commitments made by the Applicants are in the public interest. First, they commit that they will maintain at least as many settlement-free U.S. peering arrangements for Internet backbone services with domestic operating entities as they did in combination on the Merger Closing Date. Second, they will post their peering policy on a publicly accessible website, and will post any revisions on a timely basis.[394] Because we find these commitments will serve the public interest, we accept them and adopt them as conditions of our approval of the merger.

134. We recognize the unique concerns of rural carriers expressed by Great Plains, the Rural Alliance, NTCA, and others concerning a potential lack of options for access to Internet backbones at reasonable rates, terms, and conditions.[395] We believe that the Applicants' voluntary commitments will reduce this concern.[396] Nonetheless, we commit to monitor vigilantly the competitive conditions unique to rural areas and will take action, as necessary, to ensure that the benefits of the Internet are extended throughout the United States. We also commit to addressing these concerns in other on-going rulemakings, including the *IP-Enabled Services* proceeding.[397]

135. *Relative Market Share.* Finally, we disagree with commenters who allege that, separate and apart from whether the merger creates a single dominant Tier 1 IBP, the merged entity will have sufficient market share and negotiating leverage to engage in targeted de-peering of rival Tier 1 IBPs.[398] We are persuaded that the Applicants' moderate combined market share (by our calculations 40 percent, based on backbone revenues) sufficiently rebuts commenters' claims that they will have the ability to engage in targeted de-peering of rival Internet backbones, particularly when viewed in light of the significant market shares of other Tier 1 backbones.[399] While the merged entity may have some increased

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Networks (visited Sept. 14, 2005) *available at* http://global.mci.com/uunet/peering/; *Level 3 Settlement-Free Interconnection Principles* (visited Sept. 14, 2005) *available at* http://www.level3.com/1511.html.

[394] *See* SBC Oct. 31 *Ex Parte* Letter, Attach. at 3-4; *see also* Appendix F.

[395] *See, e.g.*, NTCA Comments at 3 (expressing concerns about possible discrimination by the merged company against other backbones and ISPs); Letter from Ken Pfister, Vice President-Strategic Policy, Great Plains Communications, to Ms. Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 05-65 & 05-75 (filed Oct. 20, 2005) (raising concerns on behalf of the Rural Alliance about Internet backbone connections and discrimination against smaller ISPs).

[396] *See* SBC Oct. 31 *Ex Parte* Letter, Attach. at 3-4; *see also* Appendix F. Further, as discussed above, we find that sufficient competition should remain in the Tier 1 backbone market such that transit prices would not be affected. Indeed, as previously noted, there has been a general downward trend of transit prices in recent years. *See* AT&T Apr. 22 *Ex Parte* Letter, Attach. at 3 (noting that **[REDACTED]**).

[397] *See IP-Enabled Services*, WC Docket No. 04-36, Notice of Proposed Rulemaking, 19 FCC Rcd 4863 (2004).

[398] *See, e.g.*, EarthLink July 15 *Ex Parte* at 6-8; Broadwing and SAVVIS Aug. 12 *Ex Parte* at 2-3, 9-10.

[399] *See supra* paras. 122-123 (discussing Tier 1 IBP market shares); *see also* BT Americas White Paper at 31 n.58 (stating that in the absence of "joint dominance" by SBC/AT&T and Verizon/MCI, "the parties are unlikely to be able to successfully engage in widespread anticompetitive degradation or pricing strategies in the downstream Internet backbone market.").

negotiating leverage over smaller backbone providers,[400] we conclude that the merged SBC/AT&T likely would lack the ability to target its larger rivals, including **[REDACTED]**—all of which command significant revenue shares of the backbone market.[401] These providers each have unique advantages in the backbone services marketplace and likely would provide significant counterweight to the merged entity. In addition, we note that some backbone providers appear to have higher shares of traffic than of revenue.[402] In this regard, we note that Level 3 recently surpassed AT&T in backbone traffic volume.[403] Similarly, the recent merger of Sprint and Nextel creates a backbone and wireless competitor with a business plan focused on providing wireless data, including sports and entertainment video, as well as traditional wireless telephony.[404] The increasingly IP-based traffic of Sprint's 44 million plus mobile phone subscribers would presumably ride on its backbone network. Qwest, as another vertically-integrated incumbent LEC and Tier 1 backbone provider, should continue to bring competitive heft to the backbone market as well.[405] Based on the foregoing, we see no need for the conditions that commenters suggest.[406] As discussed above, we take further comfort from the commitments the Applicants have made regarding their peering practices.

136. *Coordinated Effects*. Other commenters suggest that SBC/AT&T and Verizon/MCI together might come to dominate the Tier 1 IBP market and then engage in coordinated interaction.[407] As an initial matter, we conclude that the proposed merger will likely not result in competitive harms due to

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[400] **[REDACTED]**. *See* Confidential Appendix E, Table 1 (Market Shares and HHIs of Tier 1 Backbone Providers).

[401] *See id.*

[402] AT&T Apr. 22 *Ex Parte* Letter, Attach.

[403] SBC/AT&T Schwartz Reply Decl. at para. 12.

[404] Arshad Mohammed, *Training to Become Wireless Heavyweight*, WASHINGTON POST, Aug. 22, 2005, at D01; *Sprint/Nextel Order*, FCC 05-148 at para. 134 (noting merger-specific benefits related to the deployment of 3G technology, including high performance push-to-talk capabilities and high speed data rates).

[405] In addition, Comcast, the largest cable modem ISP, has announced that it will build its own Internet backbone. *See Comcast Extends National Fiber Infrastructure* (Dec. 7, 2004) *available at* http://www.cmcsk.com/phoenix.zhtml?c=118591&p=irol-newsArticle&ID=650960&highlight=backbone. Google has also announced that it is reviewing bids for the deployment of a national fiber network. *See Google Reviewing Bids for National Optical Switching Network* (Sept. 19, 2005) *available at* http://www.ipmediamonitor.com/subscribers/index.htm?iid=6&article_id=21.

[406] Commenters proffer a number of remedies, which we do not discuss in detail, because as noted, we find that the commenters have not established either merger-related harms requiring remedy, or substantial and material questions of fact concerning whether such harms exist. *See, e.g.*, Cox Comments at 3; Vonage Petition at 11; Broadwing and SAVVIS Aug. 12 *Ex Parte* Letter at 11; Letter from Christopher J. Wright *et al.*, Counsel for Broadwing and SAVVIS, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 05-65, 05-75 at 8-10 (filed Oct. 21, 2005) (Broadwing and SAVVIS Oct. 21 *Ex Parte* Letter); NCTA Reply at 2-3; EarthLink Aug. 26 *Ex Parte* Letter at 11-15; Letter from John W. Butler, Counsel for EarthLink, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 05-65, 05-75 at 3-12 (filed Oct. 3, 2005).

[407] *See, e.g.*, EarthLink Petition at 7 (arguing further that SBC and Verizon have long history of avoiding significant competition with each other, and that the two merged firms thus are likely to do so here); Letter from Kristen Verderame, BT Americas, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 05-65, 05-75 (filed May 6, 2005) (claiming that the merged firms can effectively signal each other through bilateral contractual dealings and leaks to achieve common objectives).

coordinated interaction among Tier 1 backbone providers. Because sufficient vigorous Tier 1 backbone competitors would remain (even if some current backbone providers were de-peered) the feasibility of such coordinated strategies is questionable.[408] In short, the commenters' arguments would seem to require that SBC/AT&T or other firms be able to de-peer a sufficient number of Tier 1 backbones so as to make coordinated effects more likely. We find this result to be speculative at the very least, and not supported by the record. Accordingly, we conclude that SBC's control of AT&T is unlikely to result in anticompetitive coordinated effects in the Tier 1 Internet backbone market.

137. For the reasons discussed above, we also are unpersuaded that SBC/AT&T and Verizon/MCI, in particular, will have the ability to coordinate to de-peer a sufficient number of their backbone rivals—either through targeted and serial de-peering or global de-peering—to effectively "tip" the market to duopoly.[409] We conclude that it would be difficult for the merged SBC/AT&T and Verizon/MCI to agree tacitly on the specifics of these de-peering strategies, such as which peers to target, and in which sequence, without reaching an express agreement in clear violation of antitrust laws.[410] It is also not clear that, even together, the merged SBC/AT&T and Verizon/MCI would be able successfully to engage in global de-peering. To the extent that other Tier 1 backbones have a significant number of content customers, which commenters claim to be the case, SBC/AT&T's and Verizon/MCI's "eyeball" customers likely will value access to that content so highly that the strategy would not be profitable. In addition, even after combining their respective retail broadband customer bases, the merged SBC/AT&T and Verizon/MCI would have less than 30 percent of all broadband "eyeballs."[411]

138. *Loss of Potential Competition.* We reject commenters' assertions that the proposed merger will eliminate SBC as a potential Tier 1 competitor. Commenters contend that SBC had aggressive, pre-merger plans to build a nationwide backbone network, and that, in fact, SBC's backbone has grown rapidly over the last four years. They further contend that SBC is nearly a Tier 1 competitor that potentially could compete with AT&T.[412]

[408] While some commenters contend that de-peering places the de-peered backbone at a competitive disadvantage, it is possible that the act of de-peering one competitor may very well make another competitor stronger, as the de-peered provider (or its customers) will need to purchase transit and will be disinclined to do so from the very provider (such as SBC/AT&T) that just de-peered it. *See, e.g.*, Cox Comments at 14 (claiming that the merged company would have increased capability and incentive to maintain transit rates at supra-competitive levels in order to raise the costs of IP service providers who compete against SBC's core retail services).

[409] *See, e.g.*, Broadwing and SAVVIS Reply at 48-51; BT Americas White Paper at 6-31.

[410] *DOJ/FTC Guidelines* §2.1 (noting that successful coordinated interaction entails reaching terms of coordination that are profitable to the firms involved and an ability to detect and punish deviations that would undermine the coordinated interaction).

[411] SBC/AT&T Schwartz Reply Decl. at Table 4. While some commenters note that "eyeballs" come from SBC's dial-up Internet access customers as well, there likewise are many more customers of competing dial-up ISPs nationwide than subscribe to SBC's service. SBC Info. Req., Exh. 13(b)(1) (for the fourth quarter of 2004, SBC and Verizon combined had only **[REDACTED]**% of dial-up Internet access customers).

[412] *See* Broadwing and SAVVIS Petition at 42; SAVVIS Dovens Decl. at para. 11. BT Americas contends that SBC over time could have used its eyeballs to grow into an Internet backbone provider rivaling the size and competitive position of the largest Tier 1 providers. Letter from A. Sheba Chacko, Chief Regulatory Counsel, BT Americas, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 05-65, 05-75, Attach. (filed May 6, 2005).

139. While it certainly is possible that SBC would have achieved Tier 1 status absent the merger, we find that this fact alone does not raise a potential competition concern.[413] In order for a loss of potential competition to raise an antitrust concern, four criteria must be met: the market must be concentrated; the potential entry must produce a substantial likelihood of producing a deconcentrated market; there must be few other equivalent potential competitors; and the company being acquired must be able to enter the market without the merger.[414] Here, only the last criterion is satisfied. As discussed above, we are satisfied that there are enough competitors in the Internet backbone market to provide sufficient competition. Given this, the acquisition of a *potential* competitor – which by definition does not diminish the current state of competition – cannot cause substantial competitive harm.

b. Vertical Effects (Raising Rivals' Costs)

140. We reject commenters' assertions that the vertical integration of SBC and AT&T could allow the merged entity to raise the costs of its VoIP and retail broadband rivals by: (a) discriminating against IP packets transmitted by its broadband and VoIP competitors; and/or (b) leveraging bottleneck control over special access to gain a competitive advantage in the backbone and broadband markets. For the reasons given below, we conclude that the proposed merger is not likely to have such adverse effects on competition.

141. *Packet Discrimination and Traffic Degradation.* We are not persuaded by commenters' assertions that the merger gives rise to an increased incentive and/or ability for the merged company to degrade or otherwise discriminate against competitors' IP traffic. Commenters claim that the merger increases the potential for three forms of "broadband discrimination" with respect to competing VoIP, IP video, and other IP-enabled services with limited tolerance for latency and packet loss: (i) giving the merged entity's IP packets priority over the packets generated by third party providers; (ii) affirmatively injecting latency or otherwise degrading the packets sent by third-party Internet application providers; and (iii) blocking certain transmissions.[415] Such actions by the merged entity would allegedly place competing providers at a significant competitive disadvantage as to quality of service.[416]

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[413] We note that SBC's network is sufficiently robust to qualify as a settlement-free peer with **[REDACTED]**. SBC Info. Req. at 72 (**[REDACTED]**). SBC's **[REDACTED]**. *See* SBC Info. Req. at 97 (indicating that based on successful completion of trials with **[REDACTED]**). SBC had also entered into trial peering with **[REDACTED]**. SBC Info. Req. at 98. In addition, SBC continues to build its domestic and global backbone network. SBC has opened points of presence in Europe in order to satisfy the requirements of many of the international Internet backbone providers that a prospective peer be able to interconnect at multiple geographic locations both inside and outside the United States. SBC expected **[REDACTED]**. SBC/AT&T Info. Req. at 97.

[414] ABA SECTION OF ANTITRUST LAW, ANTITRUST LAW DEVELOPMENTS 354-62 (5th ed. 2000).

[415] *See, e.g.*, Vonage Comments at 14 (describing possible broadband discrimination); EarthLink Collins Decl. at paras. 5-6 (describing possible methods of programming routers to discriminate against competing service providers, such as by disconnecting networks that carry particular types of traffic or creating "queues" that give a lower priority to competing service providers' traffic); Vonage Comments at 1, 14 (expressing concerns about broadband discrimination based in part on a March 2005 Consent Decree between Madison River Communications and the Commission's Enforcement Bureau concerning the company's practice of port blocking, such that all of the communications generated by Vonage customers were blocked, and citing *Madison River Communications, LLC and Affiliated Companies*, File No. EB-05-1H-0110, DA 05-543 (EB rel. March 3, 2005)).

[416] Vonage Comments at 14. Vonage claims that while cable providers have committed not to block customer access to new innovative IP applications, SBC has waffled on its commitments in this area and opposes conditions that would preclude it from discriminating in price, terms, conditions or quality of service to customers that chose to (continued....)

142. We are generally unpersuaded that commenters' concerns are sufficiently merger specific and that the merged entity is likely to pursue the alleged strategies. First, we note that no commenter has alleged that SBC (or AT&T) currently engages in packet discrimination or degradation.[417] Second, to the extent that commenters allege that packet degradation or discrimination could occur using AT&T's backbone, we find it unlikely that the merged SBC/AT&T would have the incentive to engage in such conduct. We acknowledge that, in theory, the merger could give the merged company an incentive to degrade or discriminate against the IP traffic of its retail competitors. On the other hand, we agree with the Applicants that the merged entity will likely have strong incentives to provide VoIP (and to make others' VoIP services available to its broadband customers), in order to retain customers that seek a VoIP alternative to circuit-switched voice service.[418] Consequently, we believe that these countervailing incentives make it unlikely that the merged company would choose to engage in packet discrimination or degradation of IP traffic.

143. Third, it is not clear that the merged company would be able effectively to discriminate or degrade competitors' IP traffic using its Internet backbone.[419] Given the routing of VoIP calls today, for example, it does not appear that the backbone creates a new bottleneck for VoIP providers that use their own backbone or a virtual private network to deliver service to their customers by delivering the traffic directly to the public switched telephone network (PSTN), rather than routing it through the SBC/AT&T

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purchase a competitive IP application not offered by SBC or its affiliates. *Id.* Global Crossing similarly alleges that combining SBC and AT&T, which are current competitors in the enterprise VoIP market, could have a negative impact on VoIP services. Global Crossing Comments at 22, 24.

[417] While the merger does not materially alter SBC's existing incentives to prefer affiliated VoIP and other IP traffic and to protect traditional voice revenues by discriminating against or degrading the traffic of competing VoIP providers, some commenters contend that SBC could currently leverage its control over last mile facilities, on which VoIP traffic terminates, to block or degrade access. *See, e.g.*, Vonage Comments at 15 (discussing possible discrimination through port blocking). That is not a merger-specific concern. Further, this general issue is the subject of a pending Commission proceeding. *See IP-Enabled Services*, 19 FCC Rcd at 4915, para. 77 (seeking comment, for example with respect to "the incentives of facilities-based IP service providers to provide network access to non-facilities-based IP service providers").

[418] SBC/AT&T Application at A-3 (noting that Project Lightspeed will bring next-generation integrated video, super high-speed broadband access, and voice over IP (Internet Protocol) services via a new fiber-rich network to 18 million households in its 13-state region by the year 2007); Joint Opposition at 69, note 20. Even if the merger were to increase the ability of the merged entity to engage in packet discrimination and degradation, the record indicates that such strategies are unlikely to be profitable in the long term. The relevant calculus is whether the potential benefits of packet discrimination or degradation against the merged entity's VoIP competitors (*i.e.*, potentially higher customer take rates or win-back and resulting increases in VoIP revenues) would outweigh the potential costs (*i.e.*, network administration costs and possible customer churn). *Compare* EarthLink Collins Decl. at para. 8 (discussing possible network administration costs and technical obstacles associated with a selective degradation strategy, although suggesting that some of the technical obstacles might not be that great) *with* Earthlink Aug. 26 *Ex Parte* Letter at 7-8 (selective degradation possible on current network architecture and would not be easily identified or defeated). In the race to roll out competitive, nationwide VoIP offerings, we are not convinced that the merged entity has much to gain from blocking or affirmatively degrading rival VoIP services.

[419] As an initial matter, although SBC's backbone is not a Tier 1 backbone, all traffic destined for its in-region Internet access and other Internet customers is carried on SBC's backbone today prior to delivery to those customers. *See* Letter from Gary L. Phillips, SBC, and Lawrence J. Lafaro, AT&T, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 05-65 at 2 (filed Oct. 10, 2005) (SBC/AT&T Oct. 10 *Ex Parte* Letter).